

Claims

1. A method for managing a group of network access servers (ZS1, ZS2, ..., ZSN) within which group the "Multichassis Multilink Point-to-Point Protocol" (MMP) is used, wherein an address list of the other network access servers in this group (ZS1, ZS2, ..., ZSN) is managed by each network access server in this group (ZS),
characterized in that
- 10 the logging on/off of a new network access server (ZSN+1) to or from this group takes place in such a way that an address list of a network access server (ZS) always indicates the current status of the network access servers (ZS1, ZS2, ..., ZSN) in the group.
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2. The method as claimed in claim 1,
characterized in that
- when a new network access server (ZSN+1) logs onto a group of network access servers (ZS1, ZS2, ..., ZSN), a first
 - 20 message (N1) is sent from the new network access server (ZSN+1) to the network access servers of this group (ZS1, ZS2, ..., ZSN),
 - the network access servers of this group (ZS1, ZS2, ..., ZSN) store the address of the new network access server (ZSN+1) in an address list and send a second message (N21, N22, ..., N2N) to the new network access server (ZSN+1) in
 - 25 each case,
 - the second messages (N21, N22, ..., N2N) are received and used by the new network access server (ZSN+1) for creating and storing an address list of all network access servers
 - 30 in this group (ZS1, ZS2, ..., ZSN).
3. The method as claimed in one of the claims 1 to 2,
characterized in that

- a repetition time (TW) is assigned to a network access server in the group (ZS), said repetition time specifying the time intervals at which a second message (N2) is sent from the network access server (ZS) in a periodically recurring manner to the other network access servers (ZS1, ZS2, ..., ZSN+1) in the group, and
- the network access server (ZS) is deleted from the address lists of the other network access servers (ZS1, ZS2, ..., ZSN+1) in this group if the second message (N2) is not received by them before the expiry of the repetition time (TW).

4. The method as claimed in claim 2 and 3, characterized in that

- the repetition time (TWN+1) is contained in the first message (N1), and
- this repetition time (TWN+1) is stored in a list by the network access servers of this group (ZS1, ZS2, ..., ZSN) when a new network access server (ZSN+1) logs on.

5. The method as claimed in one of the claims 3 or 4, characterized in that, instead of the second message (N2), a fourth message is provided for the periodically recurring notification.

6. The method as claimed in one of the claims 1 to 5, characterized in that

- a third message (N3) is sent by a network access server (ZSN) in the group to the other network access servers (ZS1, ZS2, ..., ZSN+1) in the group, and
- the other network access servers (ZS1, ZS2, ..., ZSN+1) in this group delete this network access server (ZSN) from their address lists when they receive this message (N3).

7. The method as claimed in one of the claims 2 to 6, characterized in that a distribution list address is used for sending the first and/or second and/or third messages (N1, N2, N3) and the fourth
5 messages within the group of network access servers (ZS1, ZS2, ..., ZSN+1), said distribution list address including addresses of at least all network access servers in this group (ZS1, ZS2, ..., ZSN+1), wherein a message contains an identification of the group (GI).

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8. A network access server (ZS) which includes means for linking into a group of network access servers (ZS1, ZS2, ..., ZSN), the "Multichassis Multilink Point-to-Point Protocol" (MMP) being used within said group, wherein this network access
15 server (ZS) includes an address list of the other network access servers in this group (ZS1, ZS2, ..., ZSN), characterized in that this network access server (ZS) includes means for registering a logging on and/or off of another network access server
20 (ZSN+1) to or from this group, such that an address list in the network access server (ZS) always shows the current status of the network access servers (ZS1, ZS2, ..., ZSN) which are in the group.

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9. The network access server (ZS) as claimed in claim 8, characterized in that

- it includes means for receiving a first message (N1) which indicates the logging on of a new network access server (ZSN+1) to a group of network access servers (ZS1, ZS2,
30 ..., ZSN),
- it includes means for storing an address of the new network access server (ZSN+1) in an address list, wherein the address is contained in the first message (N1),

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- it includes means for sending a second message (N2) to the new network access server (ZSN+1), and
- it includes means for receiving second messages (N21, N22, ..., N2N) and means for generating and storing an address
5 list of all network access servers in a group (ZS1, ZS2, ..., ZSN), wherein the addresses are contained in the second messages (N21, N22, ..., N2N).

10. The network access server (ZS) as claimed in one of the
10 claims 8 to 9,
characterized in that

- it includes means for the periodically recurrent sending of a second message (N2) to the other network access servers in the group (ZS1, ZS2, ..., ZSN),
- 15 - it includes means for storing a repetition time (TW) which is assigned to a network access server (ZS),
- it includes means for monitoring whether a second message (N2) of a network access server (ZS) was received before the expiry of the repetition time (TW) which was assigned
20 to it, and
- it includes means for deleting a network access server (ZS) from an address list.